Climate at a Glance: Drought

Key Takeaways:

- The United States is benefiting from fewer and less extreme drought events as the climate modestly warms.
- The United States set records in 2017 and 2019 for having its smallest percentage of land area experiencing drought conditions.[1]
- The United States is undergoing its longest period in recorded history with less than 40 percent of the country experiencing "very dry" conditions.
- The U.N. IPCC reports with "high confidence" that precipitation has *increased* over mid-latitude land areas of the Northern Hemisphere (including the United States) during the past 70 years, while IPCC has "low confidence" about any negative trends globally.[2]

Short Summary: Real-world data show drought in the United States has become less frequent and severe as the climate has modestly warmed.

Moreover, the United Nations reports “low confidence” there are negative trends globally. Droughts have always occurred, and they always will. The available evidence shows recent years’ droughts were not caused or worsened by global warming. Instead, global and U.S. drought data show recent droughts were less frequent and severe than the droughts of the early and mid-twentieth century.

The U.S. National Oceanic and Atmospheric Administration data displayed in Figure 1 show that the United States is in the midst of its longest period in recorded history without at least 40 percent of the country experiencing “very dry” conditions.[3] Further, the peak drought years displayed in Figure 1, occurring around 1900, 1930, 1954, and 1978, were much more extensive and severe than any experienced in the United States in the twentieth and twenty-first centuries.

Figure 1. Percentage of the United States Experiencing ‘Very Wet’ or ‘Very Dry’ Conditions

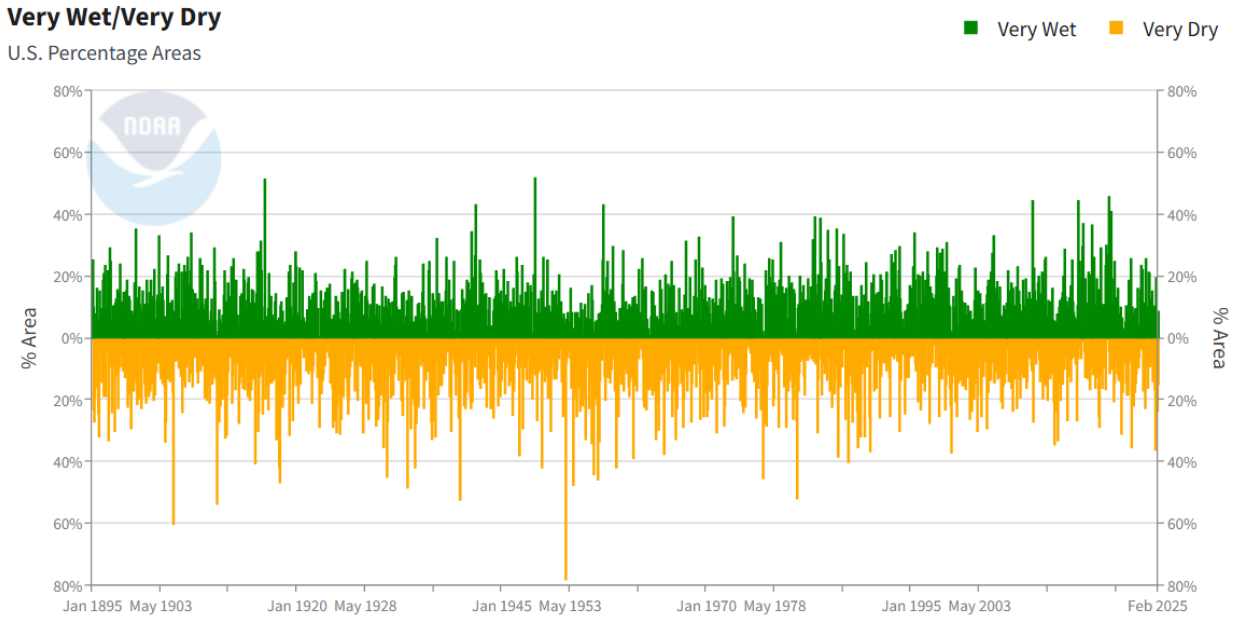

Figure 1: Standardized precipitation values based on the U.S. Climate Divisional Dataset. Climate divisions with a standardized anomaly in the top ten percent (> 90th percentile) of their historical distribution are considered "very wet" and those in the bottom ten percent (< 10th percentile) are classified as "very dry".

References:

1. Jonathan Erdman, “Drought Coverage in the Continental U.S. Drops to a 21st Century Record Low,” weather.com, April 12, 2019, https://weather.com/news/climate/news/2019-04-12-drought-record-low-coverage-continental-us-april-2019
2. U.N. Intergovernmental Panel on Climate Change, “Impacts of 1.5°C of Global Warming on Natural and Human Systems,” Chapter 3, Special Report on Global Warming, 2019, p. 191, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Chapter3_Low_Res.pdf
3. National Centers for Environmental Information, “U.S. Percentage Areas (Very Warm/Cold, Very Wet/Dry),” U.S. National Oceanic and Atmospheric Administration, accessed March 20, 2025, https://www.ncdc.noaa.gov/temp-and-precip/uspa/wet-dry/0

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